

City of San Diego, CA Water Utility Fund

Assigned	Rating(s)	Outlook
Pure Water San Diego Phase 1 North City Project WIFIA Loan (subordinate obligation)	AA	Stable

Methodology:**U.S. Municipal Water and Sewer Revenue Bond Rating Methodology****Analytical Contacts:**

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Rating Summary: The City of San Diego ("City") is undertaking a significant project using advanced water purification technology to produce potable water from recycled water. The program, entitled Pure Water, is an integral piece of the City's long-term goal of enhancing local water supply while also decreasing its reliance on imported water. The Pure Water program also yields environmental and sustainability benefits that are part of the City's long-range water management and climate action plans.

An extensive community engagement process was conducted to promote the Pure Water program and the City reports that the program receives high levels of public support. Program implementation risks are mitigated by the risk management process and extensive testing based on a fully functional water purification demonstration project that was completed in 2013. An extensive permitting and

regulatory review process has also been completed.

The City has been awarded a WIFIA Loan for up-to \$614 million that it will use to finance a portion of the Pure Water project costs allocated to the City's Water System ("System"). The WIFIA Loan is secured by and payable from net revenues of the System. Loan payments have a second lien priority pledge after senior lien obligations and are on parity with the City's outstanding subordinate lien debt. The senior and subordinate liens are open and the City projects that an additional \$823.5 million in senior and subordinate debt will be issued through 2023. Legal provisions for the subordinate lien include a 1.10x rate covenant and somewhat restrictive additional bonds test. There is no debt service reserve fund requirement.

The System is owned by the City and operated through the City's Public Utilities Department ("Department"). The managerial framework governing operations and financial management is strong. The City did, however, experience a recent problem related to billing calculation inaccuracies that led to the resignation of the Department's executive director. The System is currently being managed by an interim director while a permanent replacement is secured.

The System serves a significant population of 1.42 million and has approximately 281,000 service connections across 325 square miles. There are approximately 3,300 miles of water transmission and distribution lines with nine raw water storage reservoirs, three water treatment plants, and 29 treated water storage facilities. In FY 2018 the total amount of water supplied was 181,661 acre feet, compared to 164,228 in FY 2016. Retail customers account for 92% of total water deliveries and 96% of system revenues.

Approximately 85-90% of water supplies are imported water provided by San Diego County Water Authority ("CWA"). CWA's water is supplied by the Metropolitan Water District of Southern California from the state water project and Colorado River. Local ground water and runoff account for the balance of the City's supply. The System has adequate treatment capacity and approximately seven months of water supply stored in local reservoirs. It also has strong financial metrics with ample system liquidity and debt service coverage projections. The City is required by policy to maintain several water utility reserve funds. In FY 2018, these funds held a combined \$130.5 million, equal to approximately 109 days cash on hand that year.

The **Stable Outlook** reflects KBRA's expectation that the System will adhere to and maintain projected debt service coverage and liquidity levels and stable financial operations while it works through its sizable capital improvement program and successfully implements the Pure Water program.

Key Rating Strengths

- Strong managerial framework with consistent and timely rate increases despite recent challenges
- Strong service area economic growth with above average economic indicators
- Strong financial metrics with robust debt service coverage levels and ample system liquidity

Key Rating Concerns

- Long term water supply challenges and the need for consistent and sizable water rate increases
- Significant additional system leverage resulting from the Pure Water Program and ongoing CIP capital needs

Drivers for Rating Change

- Full implementation of Pure Water and/or other programs leading to consistently improved water supply
- Amended legal provisions requiring a specific debt service reserve fund for subordinate obligations and greater than 1.10x rate covenant
- Challenges implementing Pure Water that result in sustained inability to increase local water supply
- Additional issuance of senior lien debt beyond current projections that depresses the subordinate lien coverage levels to the 1.10x coverage requirement

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Key Ratios

Key Ratios							
City of San Diego, CA Water Utility Fund							
(\$ thousands -unless otherwise noted)	2012	2013	2014	2015	2016	2017	CAGR
Population	1,339	1,358	1,379	1,391	1,407	1,420	1.2%
Total Operating Revenues	408,119	414,508	447,565	455,222	413,008	501,404	4.2%
Total Operating Expenses	300,657	334,242	355,539	377,722	359,938	402,458	6.0%
Net System Revenues	123,723	101,762	110,919	86,885	84,991	96,045	
Aggregate Debt Service	66,191	64,210	66,691	66,835	67,389	61,842	
Aggregate Debt Service Coverage*	1.87	1.58	1.66	1.30	1.26	1.55	
Days Cash on Hand	436	362	299	234	214	191	
Average Residential Rate	\$64.2	\$64.2	\$66.1	\$70.8	\$77.3	\$82.3	
Water Supply Acre Feet		202,448	209,876	191,674	164,228	171,883	

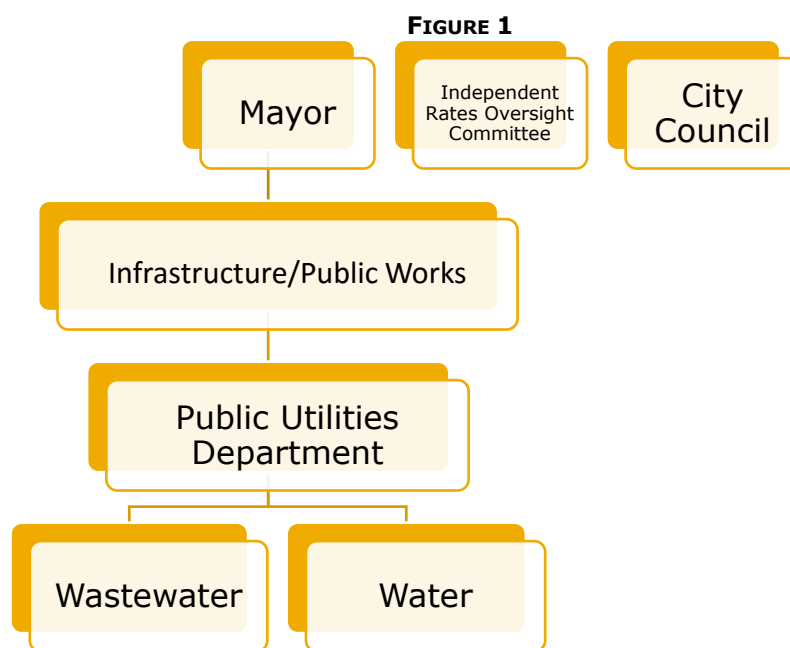
Note Debt Service Coverage is calculated pursuant to the Master Installment Purchase Agreement requirements.*

Rating Determinants (RD)	Subordinate
1. Management	AA
2. Legal Mechanics and Security Provisions	A+
3. Service Area and Economy	AAA
4. System Characteristics	AA
5. Financial Metrics	AA
6. Debt Structure and Capital Plan Requirements	AA

Rating Determinant 1: Management

KBRA views the System's management structure and financial management policies and procedures as strong. The City adheres to an extensive long-range financial planning process and a five-year financial outlook and capital infrastructure plan that is updated on an annual basis. Monthly financial monitoring reports are required by city charter and an analysis of actual financial results versus year-end projection are released on a quarterly basis. There is also an independent advisory committee, entitled the Independent Rates Oversight Committee ("IROC"), and the Capital Improvements Program Review and Advisory Committee ("CIPRAC") that add additional leadership and oversight. In KBRA's view, these structures provide a solid framework that helps ensure strong managerial oversight of the System's operations and financial condition. They also provide long-term stability that mitigates the recent operational challenges that the System is currently working through.

Organizational Structure



For financial reporting, the Department is comprised of the Water Utility Fund and the Sewer Revenue Funds. The Department consists of the following branches: System Management and Operations, Distribution and Collection, Pure Water and Quality Assurance, Water Quality, Distribution and Collection, Potable Reuse, and Business Support. Although the branches of the department cover both funds, the financial accounting is kept separate. The Director of Public Utilities oversees the Department and reports to the Deputy Chief Operating Officer.

The City Council has the authority to approve the Department's budget. It also sets rates and charges for water service and approves execution of certain contracts. The Independent Rates Oversight Committee (IROC) was established by City ordinance in 2007, expanding and replacing a previous oversight body. The 11 members of IROC are appointed by the Mayor and confirmed by the City Council and include representatives of each ratepayer class and professionals in finance, engineering, construction, and the environment. The IROC serves as an advisory body to the Mayor and City Council and oversees service delivery methods, high-quality affordable services and assistance when it comes to maintaining a high-level of public confidence in the city's utility services. The Department reports that the recent

operational challenges faced by the Department have not impacted council member support for the Pure Water program or Department operations. The Department also reports that it does not believe that the operational challenges will have an impact on Councils' willingness to support future rate increases.

The Department engages in employee succession planning and actively recruits talent at local jobs fairs. Department management reports that recent pay increases adopted by City Council as well as the opportunity to work on the Pure Water program assist the Department in attracting employee talent. Management also reports that recruitment efforts are assisted by the water and wastewater technologies program offered at nearby Palomar College. According to the college's website, the Water and Wastewater Technology programs provide pre-employment training as well as advanced courses in Water and Wastewater Technology for those wishing to become certified for a career as a water or wastewater operator. The program focuses on preparing students for certification examinations administered by the State of California Department of Drinking Water as well as those administered by professional association within the water and wastewater industry. The City has received numerous awards and recognition from water agencies and organizations throughout the United States for its far-reaching water education program and its contributions to the water industry.

Pure Water San Diego

As part of the City's Climate Action Plan ("CAP") the City is committed to sustainability and the efficient use of resources, which are key elements of the City's sustainability program. In addition to water conservation and recycled water, Pure Water is a key focus of the City's climate change sustainability efforts. Mayor Kevin Faulconer's FY 2019 Budget address specifically stated that the budget included increased funding for the Pure Water program that will create a drought-proof, independent local water supply.

Pure Water San Diego will provide 1/3 of San Diego's water supply locally by 2035. The Pure Water Program will include a system of treatment facilities, pump stations and pipelines that will be constructed in multiple phases. Phase 1 - North City will deliver 30 MGD of purified water to Miramar Reservoir. The purified water will blend with the City's imported and local water sources before it is treated again at the Miramar Drinking Water Treatment Plant and distributed to the public. The projects include the North City Morena Boulevard Pump Station and Pipelines, the North City Water Reclamation Plant Expansion and Influent Conveyance, the North City Pure Water Facility, and the North City Pure Water Pump Station and Pipeline. KBRA positively views the City's efforts to address its limited control over its local water supply, which makes the City more vulnerable to droughts, climate change and natural disasters.

Operational Challenges

The Department is undergoing an internal review focused on the areas of management structure, internal control, processes and protocols, employee oversight and public accountability. The internal review was triggered by customer billing problems resulting in some customers received higher than average water bills. An audit found that less than 1% of bills sent to customers required adjustments and that a combined total of \$562,000 in billing adjustment were required in FY 2018. These adjustments represented less than 0.10% of total FY 2018 system revenues. The audit also recommended other areas where Department operations could be improved, including a water meter cover replacement program, improvements to the City's Advanced Metering Infrastructure (AMI), and the implementation of a customer support division. The department established an enterprise risk management framework to manage these recommendations. Progress is reviewed on a monthly basis and progress reports are made to the City and the IROC. To date, the water meter cover program has been completed and the Department continues to address the AMI program and customer support division audit recommendations. Importantly, the audit found that there were no deficiencies in the Department's delivery of water. Management also reports that it expects no material impact on system operations or financial metrics.

San Diego County Water Authority (CWA)

Most of the Department's water is purchased through CWA, a wholesale water provider whose decision-making body is a 36-member Board of Directors. The CWA's 24-member agencies deliver water to almost all of San Diego County's 3.3 million residents in a service area of approximately 1,486 square miles. The City of San Diego represents the largest land area (approximately 22%), the largest population (approximately 43%) within the CWA's service area.

Each of the 24-member agencies of the CWA has at least one representative on the CWA Board of Directors. Member agencies may appoint one additional representative for each additional 5% of total assessed value (AV) of property taxable by the CWA within the public agency's boundaries. The City is represented by 10 directors (with 48.89% of June 30, 2017 AV). The City's current membership on the CWA Board of Directors includes its interim Director of Public Utilities. Under the CWA Act, a member agency's vote is based on its "total financial contribution" to the CWA since the CWA's organization in 1944. The City's voting entitlement was 39.8% as of January 1, 2018.

In 2013 (published March 2014), the CWA updated its Regional Water Facilities Master Plan, which updated anticipated regional demands according to the State's 2020 water conservation framework. Under the CWA master plan, the next increment of regional water supplies, after the regional seawater desalination project at Carlsbad, is from potable reuse projects sponsored by its member agencies, primarily the Pure Water Program. The CWA's Master Plan identifies no new regional water supply projects until after 2025.

Water Droughts and Related Issues

The period of late 2011 to 2014 was a record dry period in California, and in January 2014 the Governor declared a State of Emergency. In June 2015 the state instituted a state-wide mandatory 25% water restriction, and in 2016 a localized stress approach was implemented for conservation. The CWA's investment in drought-resilient supplies, such as a seawater desalination plant, are part of its efforts to protect against future drought events. A formal end of drought restrictions in the county was declared in January 2017 following the cyclical shift in weather patterns back to wet conditions.

California is entitled to use 4.4 million AF of Colorado River water annually. The Quantification Settlement Agreement of 2003 (QSA) between the Imperial Irrigation District (IID), the CWA, and several other federal, local, and state water agencies provides the State the means to implement water transfers and supply programs to allow the State to live within its apportionment of Colorado River water. Under the terms of the agreement, the IID agreed to the transfer of irrigation water to the CWA and the concrete lining of portions of the All-American and Coachella Canals (aqueducts off the Colorado River). Because of the QSA, the CWA projects to receive 45% of its water supply from the water transfer and canal lining projects by 2025, while reducing its purchases from MWD.

Rate Setting

The state of California has certain statutory and constitutional provisions concerning property-related fees. The state requires a tight connection between water fees and the services they fund. Within those parameters, water rates are set by the city council. Periodically, the City will enlist the services of an outside consulting firm to perform a full cost of service ("COS") analysis, typically producing a rate case for two to five years. A 2015 COS study produced the 2016 Rate Case, covering FYs 2016 through 2020, was approved by the City Council in November 2015. The program implemented rate increases of 9.8% on January 1, 2016, 6.4% on July 1, 2016, 6.4% on July 1, 2017, 5.0% on July 1, 2018 and 7.0% on July 1, 2019. KBRA views City Council's adoption of multiyear rate adjustments as a credit positive. With the Department's approved water rate increases occurring July 1st of each year, the rate increase that will be implemented each fiscal year will incorporate the approved CWA rate increase that will be effective in January during each fiscal year.

Budgetary Process

The Department's budget is developed as part of the City's annual budget. The Mayor is responsible for developing the annual budget, with the City Council providing budget priorities by February of each year. The City Charter requires the Mayor to release a Proposed Budget by April 15 of each year. The council has final budget authority and must adopt a budget by June 15. The City is required by law to balance its budget each year. The budget is monitored throughout the year with adjustments made to ensure that at the end of the year the budget is in balance. KBRA views the rigorous oversight and review of the water utility budget as a positive credit factor.

Based on the foregoing, KBRA views the management of the City of San Diego's water system as being consistent with a AA rating determinant rating.

Rating Determinant 2: Legal Mechanics and Security Provisions

The legal mechanics and security provisions provide an adequate level of bondholder/WIFIA loan lender protection at the subordinate lien level. The relatively low 1.10x subordinate lien rate covenant and absence of a debt service reserve fund are mitigated by the City's strong financial oversight and the water utility reserve funds, which are mandated by City policy. Although the water utility reserve funds are not specifically pledged for debt service and are not required to be maintained for debt service, in KBRA's view, they do provide additional financial flexibility.

Rate Covenant

The City is required to fix, prescribe and collect rates, fees and charges for the System during each fiscal year that are at least sufficient to yield net system revenues equal to at least one hundred ten percent (110%) of the debt service with respect to all outstanding obligations (aggregate senior and subordinate obligations) and adjusted net system revenues equal to at least one hundred twenty percent (120%) of the adjusted debt service with respect to all outstanding parity obligations (senior lien obligations) for such fiscal Year.

Flow of Funds

Gross revenues collected by the City and deposited into the water utility fund. After the payment of water system operation and maintenance costs, net revenues are applied to senior lien obligation debt service and senior lien reserve funds (if any). After satisfying all senior lien obligations and reserves the remaining net revenues are applied to subordinate lien obligation debt service and subordinate lien reserve funds (if any). The Master Installment Purchase Agreement does not require monthly set aside for subordinate obligations, which KBRA would view as somewhat problematic if the City did not have such a robust financial management control and oversight system in place.

Reserve Requirement for the Subordinate Lien

There is a debt service reserve requirement for one series of subordinate lien bonds, but there is no debt service reserve requirement for the WIFIA Loan.

Additional Indebtedness for the Second Lien

To issue additional subordinate lien obligations the City must satisfy one of the following additional bonds tests:

- Net system revenues within twelve consecutive months of the past eighteen-month period at least equal 1.10x the MADS on all obligations immediately after the issuance of the proposed additional subordinate debt.
- Estimated net system revenues for the five fiscal years following the earlier of the capitalized interest period or the end of the fiscal year in which the additional debt is issued, or the date on which substantially all new facilities financed with such additional debt are expected to commence operations, will be equal to 1.10x the MADS on all obligations to be outstanding after the issuance of additional subordinated obligations, **and** to the extent any obligations include a rating requirement with respect to the issuance of additional obligations, such ratings requirement shall apply to the issuance of the additional parity obligations or additional subordinate obligations, as applicable, except in the case where additional parity obligations or additional subordinated obligations are held by the California State Water Resources Control Board under any SRF loan agreement.

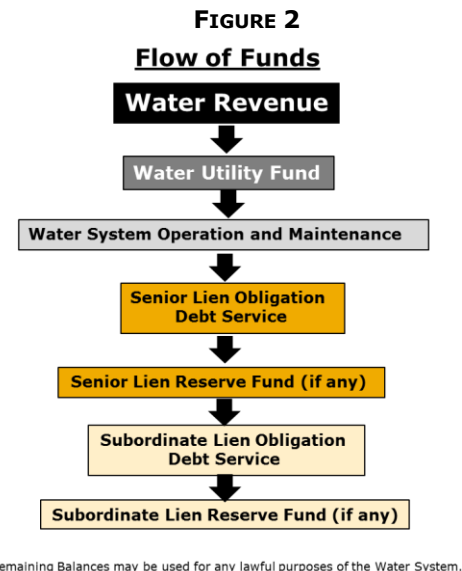
Net revenues may take into account any increases in rates and charges which relate to the water system and which have been approved by City Council, and may take into account an allowance for any estimated increase in net revenues from any revenue producing additions or improvement to or extension of the Water System to be made with the proceeds of such additional indebtedness or with proceeds of obligation previously issued, all in an amount equal to the estimated additional average annual net system revenues to be derived from such additions during the five year period.

Based on the foregoing, KBRA views the legal mechanics and security provisions of the City of San Diego's subordinate lien water system obligations, including the WIFIA Loan, as being consistent with an A+ rating determinant rating.

Bankruptcy Assessment

To be eligible to file a Chapter 9 petition, a "municipality," as defined under the Bankruptcy Code to include a "political subdivision or public agency or instrumentality of a State," must meet certain eligibility requirements, including that it is specifically authorized by its State to file such a petition. 11 U.S.C. § 109(c). We believe the City meets the definition of "municipality" under the Bankruptcy Code. It is KBRA's understanding that according to bankruptcy provisions in the State of California, local governments, including counties, cities, districts, public authorities, public agencies and other municipal entities, are generally allowed to file for relief under Chapter 9. While local governments within the State are granted broad authority to file Chapter 9, California Government Code sections 53760-53760.9 require cities, counties, and certain other special districts, to first attempt to resolve their fiscal problems with creditors, employee groups and other interested parties through a mediation process or to declare a fiscal emergency before they may file a petition for relief under Chapter 9.

It is KBRA's understanding that the pledge securing the WIFIA Note ("Note") constitutes a pledge of special revenues, as defined under the U.S. Bankruptcy Code and, thus, should qualify for special protections afforded to holders of the Bonds secured by special revenues in the event of a municipal bankruptcy filing by the City.



It is also KBRA's understanding that because the net system revenues securing the Note would likely qualify as special revenues under the Bankruptcy Code, the City's pledge of net system revenues to pay the Note would not terminate upon a municipal bankruptcy filing under Chapter 9 and any pledged funds received by the City following a chapter 9 bankruptcy petition should remain subject to the pledge contained in the underlying documents, including the collateral agency, account and assignment agreement. Thus, the application of the net system revenues to regularly scheduled payments of principal and interest on the WIFIA Note should continue under 11 U.S.C. § 922(d) throughout any bankruptcy proceeding, albeit subject to the payment of the necessary operating expenses of the water system as specified by 11 U.S.C. § 928(b). However, a recent district court ruling in the Title III bankruptcy-like proceeding involving the Puerto Rico Highways & Transportation Authority (PRHTA) has called into question market expectations regarding the proper application of § 922(d) of the Bankruptcy Code. In that case, the court ruled, among other things, that the PRHTA did not have to continue to make payment on its bonds secured by a pledge of special revenues in the manner previously described in this paragraph. The court's decision is currently on appeal to the U.S. Court of Appeals to the First Circuit.

Under the terms of the loan documents, the Note is a subordinated obligation of the City that is secured by a second priority lien and pledge of the Net System Revenues on parity with other subordinated obligations and junior and subordinate to the lien on and pledge of the net system revenues securing parity obligations, as such terms are defined in the master installment purchase agreement. KBRA understands that a Bankruptcy Court should respect this designation and the holder of the Note should be entitled to payment under the terms of the loan documents to the extent that funds are available for subordinated obligations after senior lien obligations are paid all amounts that are due and owing to the parity senior obligations.

KBRA notes that there is no certainty regarding how a bankruptcy court examining the Loan would ultimately rule on the issues set forth above. Additionally, KBRA understands from discussions with outside legal counsel that no controlling judicial precedent exists analyzing the issues set forth in this Bankruptcy Assessment. KBRA, in consultation with outside counsel, understands that there can be no guarantee, however, how a bankruptcy court, with its considerable equitable powers, would ultimately rule.

Rating Determinant 3: Service Area and Economy

KBRA views the resource base as substantial, diverse and growing. The City covers 325 square miles and is the second largest City in the State. It is also the county seat of San Diego County. The water system serves the City of San Diego and some surrounding retail, wholesale and recycled water customers. The service area covers 404 square miles, including 325 square miles in the City. The population served is more than 1.4 million. Given the significant overlap of the water system with the city's tax base, KBRA references the city's economic and demographic information, unless otherwise noted.

Demographic and Economic Characteristics

The City of San Diego has a sizable and growing population and is the eighth largest city in the U.S. The City's population has been growing at a faster rate than both the State and nation since 2010. The service area demographic profile shows above average levels of educational attainment and higher than average income levels. Moreover, the system's customer base is diverse, with the ten largest retail customers accounting for a modest 11.35% of FY 2018 water sales. KBRA notes that the two largest customers are the City of San Diego and the United States Navy, which accounted for a combined 6.5% of total water sales revenues in FY 2018. In KBRA's view the two largest customers are stable ratepayers that are not likely to relocate operations away from the City.

As seen in figure 4, The City has income and wealth levels that are slightly above average. 2017 per capita income was \$39,325 which represented 112.2% and 121.4% of the State and Nation, respectively. The District's poverty rate of 13.1% is slightly below both the State and U.S. levels; in KBRA's view, a slightly higher average poverty rate is not uncommon in large cities. The City's educational attainment levels are strong relative to County, State and national levels. This is partially due to the large presence of colleges and universities in the City, including the University of California, San Diego (UCSD), San Diego State University and the University of San Diego.

FIGURE 3

	2017 Population	Chg from 2010	2017 Age Dependency Ratio ^{1,2}	Chg from 2010	2017 Population with B.A. Degree or higher ²	Chg from 2010	2017 Poverty Level ²	Chg from 2010	2017 Income per capita	Chg from 2010
City of San Diego	1,419,488	8.2%	47.9%	-0.2	45.6%	5.3	13.1%	-4.3	\$39,325	27.9%
San Diego County	3,337,685	7.5%	54.9%	1.7	38.8%	5.1	11.8%	-3.0	\$36,697	28.8%
California	39,536,653	5.9%	58.3%	1.2	33.6%	3.5	13.3%	-2.5	\$35,046	28.1%
United States	325,719,178	5.3%	61.8%	3.0	32.0%	3.8	13.4%	-1.9	\$32,397	24.3%
City of San Diego as % of San Diego County			87.3%		117.5%		111.0%		107.2%	
City of San Diego as % of California			82.2%		135.7%		98.5%		112.2%	
City of San Diego as % of United States			77.5%		142.5%		97.8%		121.4%	

Source: U.S. Census Bureau is used as the source in order to provide a consistent comparison among different units of government.

¹ Age dependency ratio is the sum of the population under 18 yrs and over 65 yrs divided by persons age 18 to 64 yrs.

² Year over year change shown as nominal change in percentage points.

Major economic drivers of the city include tourism, defense and military activities, international trade, and high-tech research and manufacturing. The city has become a center of biotechnology research, supported by the UCSD Medical Center, the second-largest biotech cluster in the United States, behind that of Boston and ahead of San Francisco's. Economic activity from international trade is further bolstered by the Port of San Diego, a natural deep-water port that hosts the only major submarine and shipbuilding yards on the west coast. The City is home to the largest naval fleet in the world and several U.S. Navy facilities, Marine Corps bases, and Coast Guard stations.

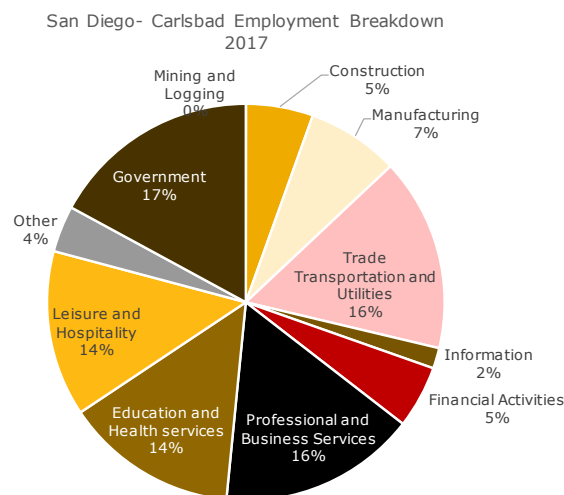
The city's beaches, tourist attractions, cultural and heritage sites are strong tourist destinations and add to the City's economic activity. In 2017 the City saw approximately 35 million visitors which spent approximately \$10.8 billion which is an 31.6% increase in spending from 2007.

Employment

KBRA believes that the City has a sizeable economy that supports a diverse mix of employers and stable employment levels. As seen in figure 5, non-agricultural labor market in 2017 comprised of government (17%), professional business services (16%), trade, transportation, and public utilities (16%), educational and health services (14%), and leisure and hospitality (14%).

Naval Base San Diego employment remains the largest employer in the City with 34,185 employees. In 2017, the San Diego Military Advisory Council estimated that the military employs approximately 115,700 military personnel in the County. Other large employment sectors include education, trade, and business services. KBRA believes that the large military presence will remain strong given the national importance of these operations.

The city's employment trends generally track with national trends. The City has seen strong growth in employment with total employment growing 13.4% since 2010 which is higher than the nation at 10.3%. This growth is driven by strong growth in the education and business sector along with leisure and hospitality. The city's annual unemployment which tends to be lower the State and nation rate peaked in 2010 at 10.3%, which was well above pre-recession levels but below the State unemployment rate. Unemployment has continued to decline and as of August 2018 indicates that the city's unemployment rate notably declined to an exceptionally low 3.3%, below both the state and national rates.

FIGURE 4

FIGURE 5

City of San Diego Largest Employers as of June 30, 2017			
Company	Business	Number of Employees	Percentage of Total Employment
Naval Base San Diego	Military	34,185	4.85%
University of California, San Diego	College	30,130	4.27%
County of San Diego	Government	19,131	2.71%
Sharp Healthcare	Health Care	17,976	2.55%
San Diego Unified School District	School District	13,815	1.96%
Qualcomm, Inc.	Technology	11,830	1.68%
Scripps Health	Health Care	11,807	1.67%
City of San Diego	Government	11,454	1.62%
Kaiser Permanente	Health Care	9,066	1.29%
San Diego Community College District	College	6,564	0.93%
Total		165,958	23.5%

Source: City of San Diego

FIGURE 6

Employment and Unemployment Rate									
City of San Diego				California			United States		
Year	Employment	% Chg.	Unemployment Rate	Employment	% Chg.	Unemployment Rate	Employment ('000)	% Chg.	Unemployment Rate
2000	590,685		3.9%	16,033,179		4.9%	136,901		4.0%
2001	602,451	2.0%	4.2%	16,197,671	1.0%	5.4%	136,939	0.0%	4.7%
2002	611,248	1.5%	5.1%	16,108,685	-0.5%	6.7%	136,481	-0.3%	5.8%
2003	617,071	1.0%	5.2%	16,102,840	0.0%	6.8%	137,729	0.9%	6.0%
2004	628,968	1.9%	4.7%	16,303,996	1.2%	6.2%	139,240	1.1%	5.5%
2005	636,461	1.2%	4.3%	16,582,651	1.7%	5.4%	141,710	1.8%	5.1%
2006	641,423	0.8%	4.0%	16,789,422	1.2%	4.9%	144,418	1.9%	4.6%
2007	645,675	0.7%	4.6%	16,931,590	0.8%	5.4%	146,050	1.1%	4.6%
2008	648,470	0.4%	6.0%	16,854,482	-0.5%	7.3%	145,373	-0.5%	5.8%
2009	628,711	-3.0%	9.4%	16,182,572	-4.0%	11.2%	139,894	-3.8%	9.3%
2010	605,554	-3.7%	10.3%	16,091,945	-0.6%	12.2%	139,077	-0.6%	9.6%
2011	611,933	1.1%	9.8%	16,258,133	1.0%	11.7%	139,885	0.6%	8.9%
2012	627,237	2.5%	8.7%	16,602,672	2.1%	10.4%	142,475	1.9%	8.1%
2013	639,250	1.9%	7.5%	16,958,403	2.1%	8.9%	143,941	1.0%	7.4%
2014	650,930	1.8%	6.1%	17,351,318	2.3%	7.5%	146,317	1.7%	6.2%
2015	663,370	1.9%	4.9%	17,724,799	2.2%	6.2%	148,845	1.7%	5.3%
2016	675,170	1.8%	4.6%	18,048,827	1.8%	5.5%	151,440	1.7%	4.9%
2017	686,466	1.7%	3.9%	18,393,077	1.9%	4.8%	153,337	1.3%	4.4%
Aug-18	690,355	0.6%	3.3%	18,541,845	0.8%	3.9%	155,542	1.4%	3.9%

Source: Bureau of Labor Statistics

Rate Affordability

The typical single-family water bill in 2018 accounts for 1.5% of the median household income, which KBRA views as affordable. Rate increases have averaged 6.3% per year over the past five years and are projected to increase by an additional 6.1% in FY 2020. The two main components of rate increases are CWA cost pass through and system cost increases for the CIP, the Pure Water Program and system operations. CWA pass throughs cost increases outpaced increases associated with the water system costs. The key rate and charge drivers for the FY 2018 CWA increase were Metropolitan Water District of Southern California's supply and transportation rate increases, increased Colorado Quantification Settlement Agreement water deliveries, and reduced water sales.

The City estimates that the cost of water produced through the Pure Water program will be \$1,700 to \$1,900 per acre foot, which is less than one cent per gallon. The City also estimated that the current price of \$1,200 to \$1,400 per acre foot of imported water will double over the next ten years, which makes the Pure Water program more cost efficient over time. KBRA understands that the cost for desalinated water is \$2,131 to \$2,367 per acre-foot. KBRA also understands that desalinization requires substantially more energy and produces substantially more greenhouse gas than the Pure Water program and requires processing of the brine produce in the desalination process.

The Water Utility Fund financial model includes projected future rate increases of 6.9% in Fiscal Year 2021, 6.4% in Fiscal Year 2022, 6.3% in 2023 and 6% thereafter. As noted, the City expects to perform a comprehensive cost of service analysis to prepare a new rate case for recommended rate adjustments for Fiscal Year 2021 and later fiscal years in accordance with the requirements of Proposition 218.

FIGURE 7

City of San Diego, Typical Single Family Water Bill based on 12 hundred cubic feet per month						
FY	2013	2014	2015	2016	2017	2018
effective date		1/1/2014	1/1/2015	1/1/2016	8/1/2016	8/1/2017
\$ amount	64.20	66.09	70.81	77.25	82.29	86.97

Source: City of San Diego

Based on the foregoing, KBRA views the service area and economy of the City of San Diego's municipal water system as being consistent with a AAA rating determinant rating.

Rating Determinant 4: System Characteristics

The Water System consists of nine raw water storage reservoirs, three water treatment plants, 29 treated water storage facilities, and over 3,300 miles of water transmission and distribution lines. Water is transported through 49 water-pumping stations and approximately 281,000 metered service connections. Most of all water supplied is purchased from the San Diego County Water Authority, which received water from a variety of sources through long-term contracts. The Department's customer base is largely diversified.

System Accounts

Of the system's 280,638 retail service connections, approximately 80% are single family residential and 11% are multi-family. All accounts are metered. The customer base is well diversified with the top ten retail customers representing a modest 11.5% of sales revenue in FY 2018. KBRA notes that the City of San Diego and the United States Navy are the two largest customers. On a combined basis, these two very stable users account for 6.5% of total water sales, which mitigates user concentration risk concerns.

In FY 2017, wholesale customers accounted for 4.6% of water sale revenues, including recycled sales. The city has four wholesale customers, the largest of which is the Cal-American Water Company, which provides water to the cities of Coronado and Imperial Beach.

Water Supply

Most of water is purchased through the County Water Authority (CWA), a regional wholesaler. The CWA's water supply is derived from several sources (see chart below), the largest supplier is the Metropolitan Water District of Southern California (MWD) which accounts for 40% of supply. CWA has been reducing its reliance on MWD, and further reductions are expected. MWD is expected to represent 11% of the CWA's supply portfolio by 2020.

Northern California water is provided through the State Water Project, which is operated by the California Department of Resources and purchased by CWA through MWD. Colorado River water is also provided through purchase from MWD. The CWA also imports Colorado River water consisting of conserved agricultural water transferred from the Imperial Irrigation District (IID), currently 100,000 AFY, and water through the lining of the Coachella Canal and the All American Canal (currently approximately 80,000 AFY). Starting in 2018, the 100,000 AFY of IID transfers ramp up to 200,000 AFY by 2021. Water from State Water Project and the Colorado River are subject to drought conditions.

If MWD anticipates that supplies will be insufficient to meet demands, MWD may allocate supplies among its members pursuant to its Water Supply Allocation Plan. In response to drought conditions, in 2015 CWA began receiving 48,000 to 56,000 AFY of water from the Carlsbad Desalination Project under a long-term purchase agreement with Poseidon Water.

Additionally, rainwater is collected in nine City-owned impounding reservoirs. The city's storage capacity totals 376,042 AF; storage levels were 51% full at the close of FY 2017. The Department's three water treatment plants have a

FIGURE 8

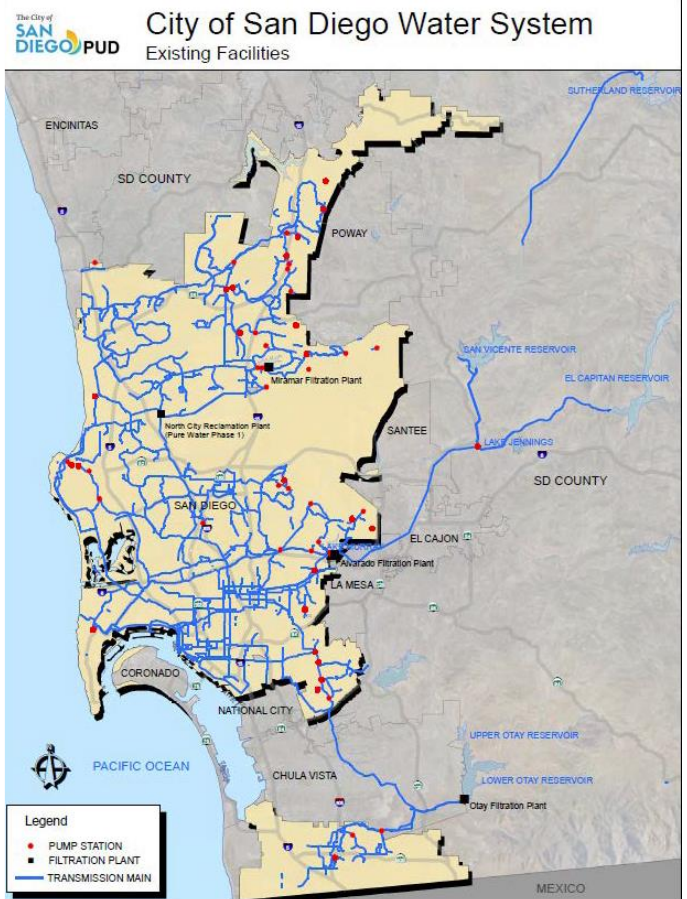


FIGURE 9

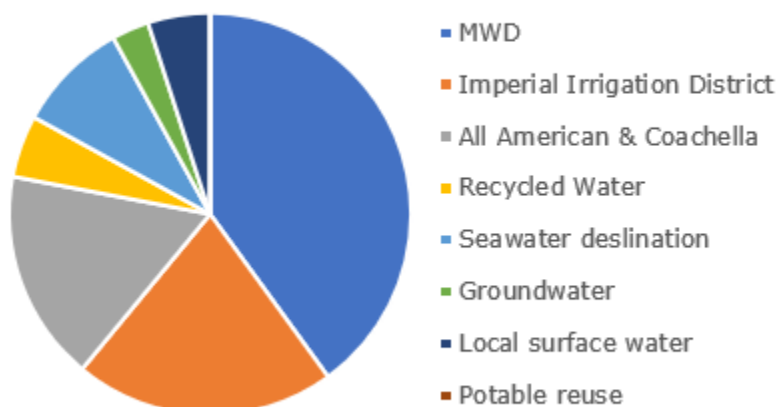
City of San Diego Retail Water Customers FY 2017	
Retail Customers	% sales revenue
City of San Diego	4.38
United States Navy	2.18
San Diego Family Housing LLC	1.09
University of California at San Diego	1.03
San Diego Unified School District	0.68
Other Federal Agencies	0.55
CP Kelco	0.50
The Irvine Co.	0.48
California Department of Transportation	0.38
San Diego State University	0.27
Total	11.54

Source: City of San Diego

drought conditions, in 2015 CWA began receiving 48,000 to 56,000 AFY of water from the Carlsbad Desalination Project under a long-term purchase agreement with Poseidon Water.

combined capacity of 378 MGD in FY 2017, relative to average and peak demand of 145 MGD and 223 MGD, respectively. Future rated capacity is 455 MGD, given improvements to the Otay and Miramar plants and approval by the State Water Resources Control Board's Division of Drinking Water. Expanded capacity to treat raw water, would reduce the need to purchase treated water, and provide capacity for customer growth.

FIGURE 10
CWA Supply Diversification, FY 2017
578,000 AF supply; 202,400 AF storage capacity



Source: CWA website

FIGURE 11
City of San Diego, Water Supply
In Acre Feet

	2013	2014	2015	2016	2017
Water supply	202,448	209,876	191,674	164,228	171,883
% change		3.7%	-8.7%	-14.3%	4.7%

The MWD Act provides a preferential right for the purchase of water by each of its constituent agencies. Based on a prescribed formula, the CWA has a statutory preferential right to approximately MWD has represented to the CWA that it will provide reliable water supplies notwithstanding preferential rights. In FY 2017 CWA accounted for 24.5% of MWD water sales.

Water Storage & Treatment Capacity

The City's raw water reservoirs and their respective capacity are presented in Figure 13. In addition to the reservoir storage capacity the City maintains and operates 29 treated water storage facilities which hold an aggregate daily total of approximately 280 gallons. The City also has agreements with various water districts and CWA to provide them storage capacity rights at the Lake Hodges Reservoir, San Vicente Reservoir, and El Capitan Reservoir.

FIGURE 12

Raw Water Reservoirs as of June 30, 2018					
Reservoir	Total Storage Capacity	City Storage Capacity	Current City Storage Levels	Current City Storage Levels to City Storage Capacity	Current City Storage Levels to Total Storage Capacity
	(A)	(B)	(C)	(C/B)	(C/A)
Barrett	34,806	34,806	11,742	34%	34%
El Capitan	112,807	102,807	24,724	24%	22%
Lake Hodges	30,633	5,317	6,126	115%	20%
Lake Murray	4,684	4,684	4,045	86%	86%
Lower Otay	49,849	49,849	32,053	64%	64%
Miramar	6,682	6,682	5,521	83%	83%
Morena	50,694	50,694	3,645	7%	7%
San Vicente	249,358	91,695	53,181	58%	21%
Sutherland	29,508	29,508	13,053	44%	44%
Total	569,021	376,042	154,090	41%	27%

The City has adequate treatment capacity with a current rated treatment capacity of 378 MGD at its three plants versus the current peak/max demand of 217MGD.

Based on the foregoing, KBRA continues to view the system characteristics of the City of San Diego's municipal water system as being consistent with a AA Rating Determinant rating.

Rating Determinant 5: Financial Metrics

City Council's support for a series of multi-year rate increases has enabled the System to move forward with its large capital program while maintaining strong debt service coverage and ample liquidity. The rate increases have also enabled the City to manage through the recent severe drought conditions and provide salary increases that help attract and retain qualified employees. City Council's consistent support, along with the Department's strong financial management, is a key factor in KBRA's strong assessment of the City's financial metrics. As noted, rate increases are calculated using cost of service rate setting principals that adhere to Proposition 218 requirements, which minimizes the potential for challenges against rate increases.

Revenues and Expenses

Operating expenses have shown a compound annual growth rate ("CAGR") of 5.7% between FY 2012 and FY 2017. Operating revenues have shown a lower CAGR of 4.2% over the same time, largely reflecting a significant 9.3% revenue decline in FY 2016 from drought related water shortages. Purchased water costs, which regularly account for about half of the City's operating expenses, have shown a CAGR of 5.9% over the past five years while administrative expenses have shown a CAGR of 8.8%. Additional administration expenses reflect salary increases and additional personnel as well as addition costs related to Pure Water. Water utility fund head count has been relatively stable. The number of total full time employees has increased from 708 in FY 2013 to 784 in FY 2019, at a rate of about 1.7% per year.

Rates, Collection Levels and Trends

Bills are collected on a bi-monthly basis for most residential accounts and monthly for larger commercial customers. The System's water service charge for all retail user classes includes a fixed monthly service charge and a commodity charge based on volume of water used. The base fee is determined by the size of a customer's meter and is charged to the customer regardless of whether the customer uses water. While the service charge is charged to each water meter and varies with meter size, the commodity charge is applied to a customer's water usage. The commodity charge is a set rate charge based upon each HCF of water consumed. The City has a tiered commodity charge structure for single family residential customers that is broken down by water usage within each rate block. The remaining retail customers (Multi-Family, Non-Residential, Temporary Construction and Irrigation) are billed under the same uniform commodity charge for their respective customer classification.

The system issues payment penalties if payments are not received within 60 days. Once delinquent accounts exceed 60 days past due and surpass certain balance thresholds, they are referred to the City Treasurer for collection enforcement. The system has the authority to suspend services on severely delinquent accounts but attempts to make every effort to collect past due amounts prior to termination of services. The number of disconnections for non-payment averaged 16,390 per year between FY 2014 and FY 2017. These amounts represent about 5% of the total system accounts. KBRA notes that the number of disconnections was reduced in FY 2018 because the City suspended its disconnection procedures in March of 2018 while it was reviewing the issued related to billing calculation errors. The City reports that

there has not been a material increase in accounts receivable and is currently working on an action plan to reinstate the disconnection policy.

FIGURE 13

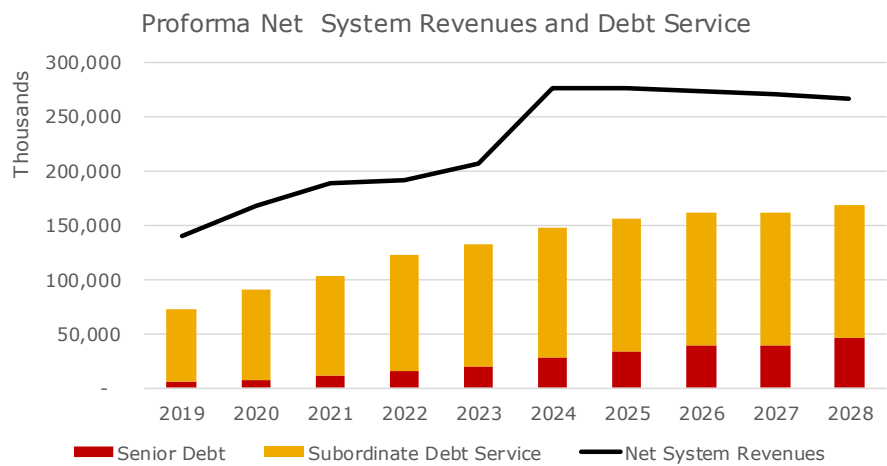
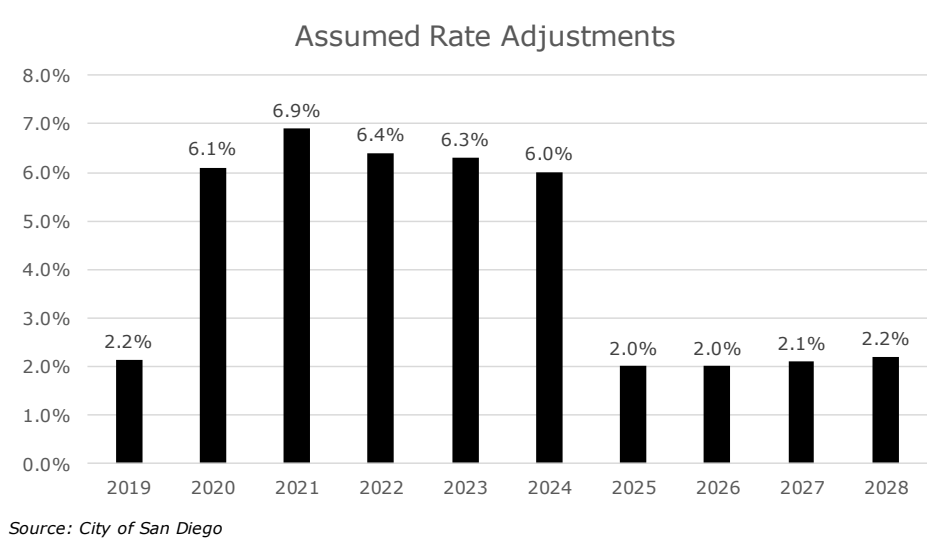


FIGURE 14



System collections of net water sales averaged %. KBRA views both the system’s collection enforcement framework and historical collection rates as very strong and believes they limit the potential buildup of receivables on the system’s balance sheet.

Debt Service Coverage

Debt service coverage for all outstanding debt has exceeded the 1.10x rate covenant by a comfortable margin. Coverage reached a low of 1.26x in FY 2016 as revenues declined in response to severe drought conditions. Debt service coverage is projected to remain above 1.50x between FY 2019 and FY 2023 as the City issues additional debt for the CIP projects. Aggregate annual debt service is projected to steadily increase from \$65.6 million in FY 2018 to \$131.9 million in FY 2023. It is KBRA’s view that City Council’s support of rate increases along with the System’s strong rate collection procedures and stable customer base will enable the System to meet the strong levels of projected debt service coverage.

FIGURE 15

City of San Diego Water Fund -Historical Operations						
	2012	2013	2014	2015	2016	2017
Total Operating Revenues	408,119	414,508	447,565	455,222	413,008	501,404
Operating Expenses						
Maintenance and Operations	78,108	79,188	91,357	79,732	84,364	95,874
Cost of Purchased Water Used	167,104	205,704	207,721	237,274	201,098	222,555
Taxes	1,826	1,797	1,963	2,117	2,165	2,299
Administration	53,619	47,553	54,498	58,599	72,311	81,730
Total Operating Expenses	300,657	334,242	355,539	377,722	359,938	402,458
Operating Income (Loss)	107,462	80,266	92,026	77,500	53,070	98,946

Water Fund Historical Debt Service Coverage Debt Service Coverage Calculations Pursuant to Master Installment Purchase Agreement							
	2012	2013	2014	2015	2016	2017	2018
							<i>Estimated</i>
All System Revenues ¹	460,988	456,551	473,908	475,874	447,555	522,020	597,608
Transfers (to) / from Rate Stabilization Fund	(29,800)	11,800	0	(7,600)	7,500	(23,500)	(8,000)
Total System Revenues	431,188	444,751	473,908	468,274	455,055	498,520	589,608
Total Maintenance & Operation Costs ²	307,465	342,989	362,989	381,389	370,064	402,475	435,673
Net System Revenues	123,723	101,762	110,919	86,885	84,991	96,045	153,935
Adjusted Senior Debt Service ³	35,599	39,344	38,904	39,166	36,519	4,001	4,224
Senior Debt Service Coverage ⁴	3.42	2.58	2.82	2.20	2.20	24.00	36.44
Total Aggregate Debt Service	66,191	64,210	66,691	66,835	67,389	61,842	65,613
Aggregate Debt Service Coverage ^{3, 5}	1.87	1.58	1.66	1.30	1.26	1.55	2.35

Note 1: "System Revenues," as defined in the Master Installment Purchase Agreement, includes operating and non-operating receipts (i.e. interest earnings, capacity charges, other income) as well as transfers to and from certain funds and the cash-based components of capital contributions. Pursuant to the Master Installment Purchase Agreement, there is deducted from "System Revenues" any amounts transferred into the Rate Stabilization Fund and there is added to "System Revenues" any amounts transferred out of such Rate Stabilization Fund.

Note 2: Amounts under Total Maintenance and Operation Costs of the Water System for such Fiscal Year, in accordance with the Master Installment Purchase Agreement, generally includes maintenance and operations, administration, cost of water purchases, transfers to other funds, pension benefits, and retiree health costs, and excludes depreciation.

Note 3: Interest earnings on the Senior Debt Service Reserve Fund are netted out of both System Revenues and Total Debt Service to calculate Senior Debt Service Coverage Ratios, but are not netted out for Aggregate Debt Service Coverage Ratios.

Note 4 & 5: Senior and Aggregate Debt Service Coverage is calculated pursuant to the Master Installment Purchase Agreement.

System Liquidity

Total cash and cash equivalents in the water utility fund was \$210.9 million at FYE 2017. This amount includes the City's water enterprise reserve funds, cash and investments, and restricted cash and investments meeting the cash equivalent requirement. In total, there was 191 days cash on hand at FYE 2017. The City has historically maintained approximately 200 days cash on hand since 2014 and is projecting an increase in liquidity to 219 days at FYE 2018. Liquidity levels are likely to remain high because the City is required by policy to maintain several water enterprise reserve funds pursuant to City policy. The following table includes the reserve funds and the estimated amounts the funds will hold at FYE 2018. On a combined basis, the reserves hold approximately 109 days cash based in FY 2018 projected expenditures or 1.99x total annual projected debt service for FY 2018.

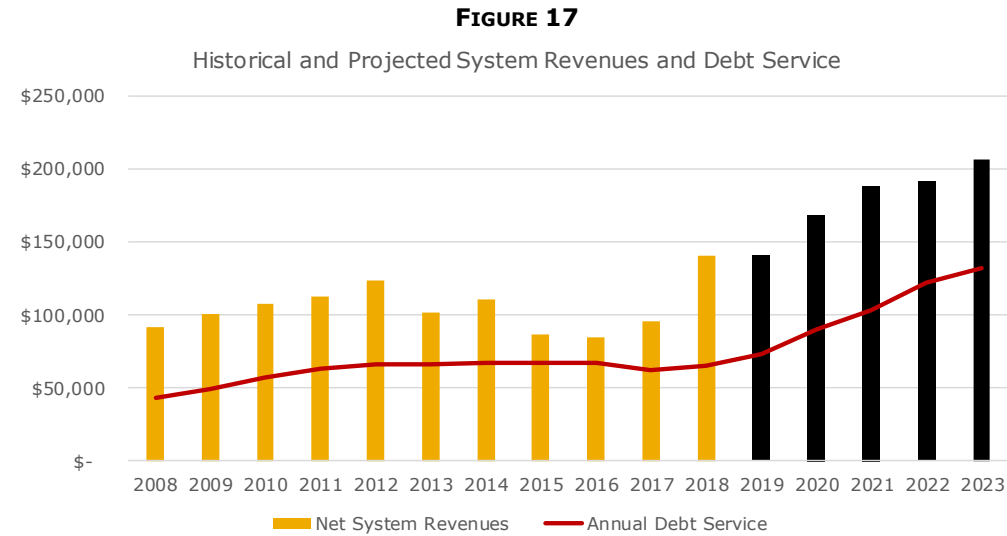
FIGURE 16

City of San Diego, Water Enterprise Reserves					
	Operating Reserve	Emergency Capital Reserve	Rate Stabilization Fund	Secondary Purchase Reserve	Total All Reserves FY 2018
Target Amount	70 Days of operating expenditures	Set at \$5.0 million	5% of the prior years' total operating revenue	6% of annual water purchase budget	\$130.5
Current Amount (\$ millions)	\$40.1	\$5.0	\$70.1	\$15.2	

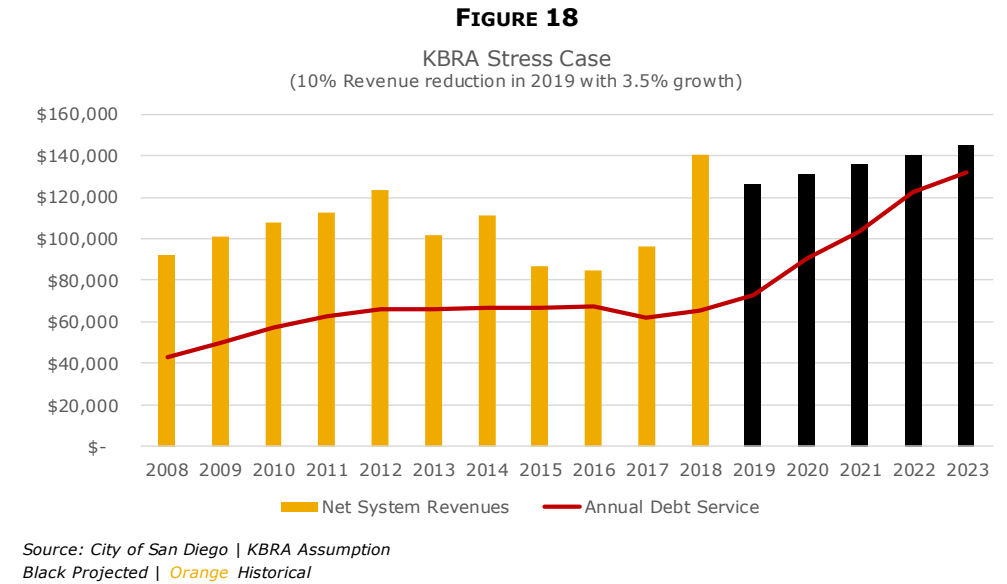
Source: City of San Diego Reserves and FY 2018 year-end projections: Public Utilities Department and Department of Finance

KBRA Stress Case

The City of San Diego net water revenues are projected to increase by 47.5% or a CAGR of 8.1% from 2018 to 2023, which provides a minimum coverage of 1.56x in 2022 (Figure 17).



KBRA ran a stress case in order to see how the coverage levels would be affected under a simulated drought scenario. The stress case reduces 2018 revenues by 10% and grows future revenues by 3.5%. Historical revenues from 2008 to 2018 has grown a CAGR of 4.3%. Under this stress the minimum DSCR is 1.1x in 2023 (Figure 18).



Based on the foregoing, KBRA continues to view the financial metrics of the City of San Diego’s municipal water system as being consistent with a AA Rating Determinant rating.

Rating Determinant 6: Debt Structure & Capital Plan Requirements

As of June 30, 2017, the water fund had approximately \$772 million in outstanding debt. Outstanding bonds are fixed rate obligations.

FIGURE 19

City of San Diego Water Fund Debt Outstanding, June 30, 2017	
Type	Amount (000s)
Commercial Paper	42,469
Loans	64,530
Bonds	665,005
Total	772,004

The City has authorization to issue up to \$250 million of tax-exempt governmental subordinate water revenue commercial notes in one or more series or subseries. The notes are secured by irrevocable direct-pay letters of credit (LOCs) from the Bank of the West (expires January 31, 2020), and Bank of America, N.A. expires (January 31, 2019). Under this program, notes are issued for up to a 270 day term. The notes can be rolled over for additional 270 days, until the notes are bonded or repaid in cash. As of June 30, 2017, \$42.47 million of tax-exempt commercial paper notes were outstanding.

Capital Improvement Plan

The CIP supports the infrastructure for reliable water supply and treatment. The Department's on-going condition assessment program includes inspection of 35 miles of water mains per year. The recycled water system, which includes three pump stations and over 80 miles of purple pipe, which treats wastewater to a level suitable for irrigation and industrial use, but not for drinking, and delivers an annual average of over 10 MGD for irrigation, manufacturing, and other non-potable uses. Pure Water San Diego is the City's phased program that uses water purification technology to provide a sustainable local water supply by turning recycled water into drinkable water. Pure Water San Diego eliminates the need for approximately \$2 billion of upgrades to the Point Loma Wastewater Treatment Plant and associated facilities. The Five-Year CIP Outlook includes completion of Phase 1 of the Pure Water Program in February 2024, which will provide 30 MGD of the Pure Water Program's ultimate design to produce 83 MGD by 2035.

FIGURE 20

City of San Diego, FY 2019-2023 CIP Water Projects, \$ in millions						
	2019	2020	2021	2022	2023	Total
Pure Water	30.12	197.04	281.51	204.49	106.03	819.20
Baseline Water CIP	210.59	249.10	182.71	149.46	144.30	936.15
Total	240.71	446.13	464.22	353.95	250.33	1,755.35

The Regional Water Quality Control Board (RWQCB) is the State agency charged with implementing the federal Clean Water Act. The RWQCB issues municipal discharge permits as required by the Clean Water Act. Under the Municipal Permit, the City must comply with requirements by maintaining and operating storm drain systems, eliminating dry weather flows and reducing pollutants in storm water runoff, with specific numeric limitations on pollutants received in the City's six watersheds. The Municipal Permit also requires the City to develop Water Quality Improvement Plans to identify and address the highest priority water quality problems, including all the City's existing storm water quality regulatory deadlines through fiscal year 2035. These plans were reviewed and accepted by the RWQCB in March 2016.

Based on the foregoing, KBRA views the system's debt structure and capital plan requirements as being consistent with a AA rating determinant rating.

Conclusion

KBRA has assigned a long-term rating of AA with a Stable Outlook to the City of San Diego, CA North City Project WIFIA Loan.

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Lakshmi Kommi
Director of Debt Management
City of San Diego
202 C Street, 7th Floor
San Diego, CA 92101

November 13, 2018

Re: City of San Diego, CA
Pure Water San Diego Program Phase 1 North City Project WIFIA Loan (subordinate obligation)

Dear Ms. Kommi:

Kroll Bond Rating Agency, Inc. ("KBRA") has assigned a long-term rating of **AA** with a **Stable** Outlook to the City of San Diego, CA Pure Water San Diego Program Phase 1 North City Project WIFIA Loan (subordinate obligation). The KBRA long-term rating does not apply to bonds backed by a letter of credit or liquidity facility, unless otherwise noted.

Please send all information to the attention of:

Kroll Bond Rating Agency, Inc.
805 Third Avenue, 29th Floor
New York, NY 10022
Attention: Public Finance Surveillance
Email: aclarke@kbra.com

Placing us on a distribution list for these reports and documentation would facilitate the process. If information will be provided via a website, the following will facilitate our prompt receipt of any reports, documentation, data and information: (i) prompt written notification to KBRA by you or another party at the time of posting of any report, documentation, data or information to such website; and (ii) providing KBRA with prompt information on how and where to access the website and ensuring the following individuals (or such other individuals as KBRA may designate from time to time) are provided with such access:

- | | |
|----------------------|--|
| 1. Andrew Clarke | aclarke@kbra.com |
| 2. Patricia McGuigan | pmcguigan@kbra.com |
| 3. Justin Schneider | jschneider@kbra.com |

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This letter constitutes KBRA's permission to you to disseminate the rating set forth above to interested parties in accordance with applicable laws. The rating set forth above is subject to all the terms and conditions attached hereto and those set forth on KBRA's website, which any party receiving this letter or the rating set forth above should review and understand.

KBRA shall have the right to publish, disseminate or license others to publish or otherwise to disseminate the rating set forth above or the rationale for the rating.

We are pleased to have had the opportunity to be of service to you. If you have any questions regarding the above, please contact me at (646) 731-2472.

Sincerely,

KROLL BOND RATING AGENCY, INC.

By:



William Cox
Managing Director

Kroll Bond Rating Agency, Inc.

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2. You understand that KBRA is relying on your representations, warranties and covenants and if, for any reason, you breach your representations, warranties or covenants at any time, you shall provide prompt written notice to KBRA and if possible, promptly correct the relevant information. The failure of any of your representations, warranties or covenants to be true at any time may affect the ratings of the transaction, KBRA's ability to issue and maintain the rating, result in the downgrade or withdrawal of the ratings and/or limit KBRA's ability to issue ratings for you in the future as we may no longer be permitted to reasonably rely on your representations. To the extent permitted by applicable law, you will indemnify KBRA for all losses, damages, liabilities, judgments, costs, charges and expenses (including reasonable legal fees and expenses) ("**Losses**") (a) resulting from a breach of these terms and conditions, including but not limited to all Losses arising from claims asserted by any third party against KBRA arising from such breach, or (b) that arise out of or relate to any claim that the information provided infringes or violates the intellectual property rights of a third party, except in either case, to the extent such Losses are judicially determined to result from the gross negligence or willful misconduct of KBRA.

3. KBRA reserves the right in its sole discretion to raise, lower or withdraw any rating at any time for any reason it deems sufficient. KBRA may take such action notwithstanding any request for a withdrawal of a rating or termination of this rating letter. Under any of the

foregoing circumstances, no fees paid to KBRA will be returned. The rating issued reflects KBRA's then current opinion of the creditworthiness of the debt or debt-like securities issued. The rating and other views of KBRA are statements of opinion and not statements of fact. They are not a recommendation or suggestion, directly or indirectly, to you or any other person, to buy, sell, make or hold any investment, loan or security or to undertake any investment strategy with respect to any investment, loan or security or any issuer. Ratings do not comment on the adequacy of market price, marketability, the suitability of any investment, loan or security for a particular investor (including without limitation, any accounting and/or regulatory treatment), or the tax-exempt nature or taxability of payments made in respect of any investment, loan or security. You acknowledge that KBRA is not your advisor and is not providing you any financial advice, or any legal, auditing, accounting, appraisal, valuation or actuarial services. The ratings should not be viewed as a replacement for such advice or services. Nothing in this rating letter is intended to or should be construed as creating a fiduciary relationship between you and us or between us and any user of the ratings described herein.

4. For purposes of this rating letter, "**Confidential Information**" shall mean information provided to KBRA by you, or at your request or direction, in connection with the rating that is marked as, or otherwise indicated in writing, including, without limitation, email, to be, "confidential." Notwithstanding the foregoing, information disclosed by you or at your request or direction to KBRA shall not be deemed to be Confidential Information, and KBRA shall have no obligation to treat such information as Confidential Information, if such information (a) was known by KBRA or its affiliates at the time of such disclosure and was not known by KBRA to be subject to a prohibition on disclosure, (b) was known to the public at the time of such disclosure, (c) becomes known to the public (other than by an act of KBRA or its affiliates) subsequent to such disclosure, (d) is disclosed to KBRA or its affiliates by a third party subsequent to such disclosure and KBRA reasonably believes that such third party's disclosure to KBRA or its affiliates was not prohibited, (e) is developed independently by KBRA or its affiliates without reference to the Confidential Information, (f) has been aggregated or modified such that it is no longer identifiable as attributable to the debt or debt-like securities, or (g) is approved by you for public disclosure, or is otherwise publicly disclosed by you. For the avoidance of doubt, with respect to (g), any information contained within a rating Report that is reviewed and authorized for publication by you, your agents, or advisors will not be deemed Confidential Information.

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7. Notwithstanding anything to the contrary, you understand and agree that KBRA has not consented to, and will not consent to, (a) being named an "expert" pursuant to applicable securities laws including, without limitation, Section 7 of the Securities Act of 1933, or (b) identification of KBRA in any registration statement, prospectus or other offering document (including through incorporation) within the meaning of applicable securities laws such that KBRA could reasonably be expected to be considered an "expert" pursuant to applicable securities laws including, without limitation, Section 7 of the Securities Act of 1933.

8. You understand that current and future laws and regulations relating to rating agencies, as such laws and regulations may be amended or supplemented, may apply to KBRA and KBRA may be required to comply with such laws and regulations by implementing internal policies and procedures. You acknowledge that our services and any ratings contemplated hereunder may be subject to such laws and regulations and you agree to cooperate with KBRA if your cooperation is necessary for KBRA's compliance. Nothing in this rating letter shall prevent KBRA from acting in accordance with applicable laws and regulations and KBRA's policies as published from time to time in furtherance of such laws and regulations. You also acknowledge that KBRA may publicly disclose any information provided in connection with providing the rating to the extent that KBRA in good faith determines is necessary to be disclosed pursuant to applicable law or regulation, including but not limited to Rule 17g-7 of the Securities Exchange Act of 1934, or if required by any regulatory authority.

9. Nothing in this rating letter, or the rating when issued, is intended or should be construed as creating any rights on behalf of any third parties, including, without limitation, any recipient of the rating. No person is intended as a third-party beneficiary of this rating letter or of the rating when issued.

10. This rating letter shall be binding on, and inure to the benefit of, the parties hereto and their successors and assigns.

11. In the event that any term or provision of this rating letter shall be held to be invalid, void, or unenforceable, then the remainder of this rating letter shall not be affected, impaired, or invalidated, and each such term and provision shall be valid and enforceable to the fullest extent permitted by law.

12. This rating letter supersedes any other agreement and/or terms and conditions relating to the information provided to KBRA in relation to the rating including, without limitation, any non-disclosure or confidentiality agreements, or terms and conditions of any website of the issuers or its agents, such as a "click-through" agreement, and constitutes the complete and entire agreement between the parties regarding the subject matter of this rating letter. This rating letter may not be amended except in a writing signed by authorized representatives of both parties.

13. The parties to this rating letter do not waive, and reserve the right to contest, any issues regarding sovereign immunity, the applicable governing law and the appropriate forum for resolving any disputes arising out of or relating to this rating letter.

14. This rating letter and any accompanying rating report shall be governed by the internal laws of the State of New York. The parties irrevocably agree that the state and federal courts of New York located in the County of New York shall be the exclusive forums for any dispute arising out of or relating to this rating letter and the parties hereby consent to the personal jurisdiction of such courts.

15. These terms and conditions are to be kept confidential between the parties. Either party may disclose these terms and conditions as required by law, or to its agents, advisors, auditors or consultants as necessary, provided that such recipients are bound by appropriate confidentiality obligations.

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Notice of Rating Action

<u>Bond Description</u>	<u>Rating Type</u>	<u>Rating Action</u>	<u>Rating</u>	<u>Outlook/ Watch</u>	<u>Eff Date</u>	<u>Notes</u>
San Diego (CA) wtr infrastructure finance & innovation act loan obligs	Long Term Rating	New Rating	AA-	RO:Sta	06-Nov-2018	
San Diego (CA) wtr infrastructure finance & innovation act loan obligs	Unenhanced Long Term Rating	New Rating	AA-	RO:Sta	06-Nov-2018	

Key: RO: Rating Outlook, RW: Rating Watch, Pos: Positive, Neg: Negative, Sta: Stable, Evo: Evolving
